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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/725,737	11/29/2000	Peter Joseph Giacomini	500-002US	9624
22897	7590	09/01/2004	EXAMINER	
DEMONT & BREYER, LLC SUITE 250 100 COMMONS WAY HOLMDEL, NJ 07733			VU, THONG H	
			ART UNIT	PAPER NUMBER
			2142	

DATE MAILED: 09/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary****Application No.**

09/725,737

**Applicant(s)**

GIACOMINI ET AL.

**Examiner**

Thong H Vu

**Art Unit**

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Claims 1-32 are pending.
2. Claims 1,8,15 and 24 have been amended. The Final Action is appropriate.

***Claim Rejections - 35 USC § 112***

3. Claims 1,8,15,24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention (i.e.: it was unclear how and when occasionally the integer is greater than one)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-32 are rejected under 35 U.S.C. § 103 as being unpatentable over Craig et al [Craig 6,513,112 B1] in view of Gaskins et al [Gaskins 5,809,562].

4. As per claim 1, Craig-Gaskins disclose a method comprising:  
populating a cache with a resource only when at least i requests for said resource have been received [Craig, populating the cache with information, col 12 lines 21-55];

wherein i is an integer [Craig, clients and servers, col 3 lines 50-59;read requests, servicing read calls, col 16 lines 42-63]

However Craig does not explicitly detail an integer is an at least occasionally greater than one. It was well-known in the populated cache art that a data array in a

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cache memory of size  $M \times N$  where  $M$  is an integer having a value greater than 1

[Gaskins, populated cache, col 7 lines 34-45; a value greater than 1 col 6 lines 27-45; col 19 lines 5-20]

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the populated cache with a value greater than 1 as taught by Gaskins into the Craig's apparatus in order to utilize the cache memory. Doing so would provide an organized cache according to space and cost and quick indexing by both physical and virtual addresses.

4. As per claims 2,9,16,25 Craig-Gaskins disclose the value of  $i$  is invariant (i.e.: configuration) [Craig, configuration time col 4 lines 33-44].

5. As per claims 3,10,17,26 Craig-Gaskins disclose the value of  $i$  is based on calendrical time [Craig, runtime and configuration time, col 4 lines 33-44].

6. As per claims 4,11,18,27 Craig-Gaskins disclose said cache is populated with said resource only when at least  $i$  requests for said resource have been received within an elapsed time interval [Craig runtime catalog, col 9 lines 32-44],

7. As per claims 5,12,19,28 Craig-Gaskins disclose the duration of said elapsed time interval,  $A_t$ , is based on the value of  $I$  [Craig, configuration time, col 4 lines 33-44].

8. As per claims 6,13,20,29 Craig-Gaskins disclose the value of  $i$  is based on calendrical time [Craig, runtime and configuration time, col 4 lines 33-44].

9. As per claims 7,14,21,30 Craig-Gaskins disclose the duration of said elapsed time interval,  $A_t$ , is based on calendrical time [Craig, runtime and configuration time, col 4 lines 33-44].

10. Claims 8,15,24 contain the similar limitations set forth of apparatus claim 1. Therefore, claims 8,15,24 are rejected for the similar rationale set forth in claim 1.

11. As per claims 22,31 Craig-Gaskins disclose said computer network is a hierarchical computer network and said first node has  $m$  filial (i.e.: all) nodes ; wherein said cache is populated with said resource only when at least one request for said resource has been received from at least  $n$  of said  $m$  filial nodes; and wherein  $m$  is an integer greater than one,  $n$  is an integer greater than one, and  $m \geq n$ . [Gaskins, populated cache, col 7 lines 34-45; a value greater than 1 col 6 lines 27-45; col 19 lines 5-20].

12. As per claim 23,32 Craig-Gaskins disclose said computer network is a hierarchical computer network and said first node has  $m$  filial nodes; wherein said cache is populated with said resource only when at least one request for said resource has been received from at least  $n$  of said  $m$  filial nodes within an elapsed time interval,

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At; and wherein  $m$  is an integer greater than one,  $n$  is an integer greater than one, and  $m \geq n$ . [Gaskins, populated cache, col 7 lines 34-45; a value greater than 1 col 6 lines 27-45; col 19 lines 5-20].

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Thong Vu, whose telephone number is (703)-305-4643.

The examiner can normally be reached on Monday-Thursday from 8:00AM- 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Jack Harvey*, can be reached at (703) 305-9705.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9700.

Any response to this action should be mailed to: Commissioner of Patent and Trademarks, Washington, D.C. 20231 or faxed to :

After Final (703) 746-7238

Official: (703) 746-7239

Non-Official (703) 746-7240

Hand-delivered responses should be brought to Crystal Park 11,2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

*Thong Vu*  
*Patent Examiner*  
*Art Unit 2142*

